STUDIES IN AQUATIC INSECTS XV: NEW SPECIES OF *NEOTRICHIA* AND FIRST RECORD OF *OXYETHIRA HILOSA* (TRICHOPTERA: HYDROPTILIDAE) FROM MEXICO[1]

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ABSTRACT: Two new species of the genus *Neotrichia*, from the tropical rain forest of Veracruz, Mexico, are described and the male genitalia illustrated. *Oxyethira hilosa*, described from Costa Rica, is recorded for the first time in Mexico.

The family Hydroptilidae is the most diverse of the Mexican caddisfly fauna so it is not surprising to find new species in this family. Harris and Bueno (1993), Bueno and Harris (1993), and Harris and Holzenthal (1992) have recently studied elements of the fauna.

In recent years, several species of *Neotrichia* from Central America and the Amazon region in South America have been described by Harris and Davenport (1992). Harris and Tiemann (1993) recorded the distribution for the *canixa* species group, which are distinguished on the basis of features of the ninth abdominal segment, including the thin bifid process on the posterolateral margin. The purpose of this paper is to describe another member of the *canixa* group and another species, probably belonging to the *anahua* group; both collected in the tropical rain forest near the Gulf of Mexico coast in Veracruz.

The terminology utilized here follows that of Marshall (1979). The holotypes will be deposited at the Colección Nacional de Insectos Instituto de Biología, UNAM (CNIN).

Neotrichia tuxtla, NEW SPECIES

Figs. 1-4

On the basis of the genitalia in ventral view, *Neotrichia tuxtla*, new species, is similar to *N. anahua* (Mosely). However, *N. tuxtla*, new species, differs from *N. anahua* in the rectangular shape of the inferior appendages which have the apex oblique in lateral view, the base slightly wider than the rounded apex in ventral view and the smooth apical margins of the bracteole in lateral view.

ADULT ♂: Length 1.5-1.8 mm. Color in alcohol stramineous.

Male genitalia: Ninth segment in ventral and lateral view anteriorly produced into a long

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process. Tenth tergum membranous appears to be fused to ninth dorsally, apical margin quadrate, apex with ventrolateral angles rounded in lateral aspect. Bracteole in lateral aspect ovate, apical margin evenly rounded, with a short, narrow stem; finger-like in ventral view. Inferior appendages in lateral view rectangular, with apex oblique and slightly rounded; in ventral view with the base slightly wider than the rounded apex, from dorsal surface, a pair of internal processes with truncate apex bearing a single bristle. Subgenital plate in ventral view a broad plate, apical margin truncate with a pair of lateral bristles; centrally produced in a short, downward directed process with apex bifurcate; in lateral view the central process appears bent downward with apex rounded. Phallus wide basally, tubular distally with a pair of heavy sclerotized spine-like processes; in lateral view preapical spine shortest and curved, longer spine almost straight; thin paramere encircling shaft at midlength.

Female: Unknown

Type material. - Holotype; ♂; MEXICO: Veracruz; Estación de Biología Tropical Los Tuxtlas, UNAM. Arroyo del Zoológico, 6. V. 1989, R. Barba (CNIN). Paratype with same data as holotype, 1 ♂ (CNIN).

Etymology: The species epithet, *tuxtla*, refers to the Los Tuxtlas region in Veracruz where the species was collected.

Remarks: This species was collected at an intermittent rivulet in the rain forest near the coast.

Neotrichia jarochita, NEW SPECIES

Figs. 5-8

In overall appearance the male genitalia of this species are similar to *Neotrichia juani* Harris & Tiemann and *N. malickyi* Harris. However, *N. jarochita*, new species, differs from them by having the inferior appendages narrow in ventral view with the inner process very thin and fused at midlength to a wider process.

ADULT ♂. Length 1.5mm. Color in alcohol stramineous.

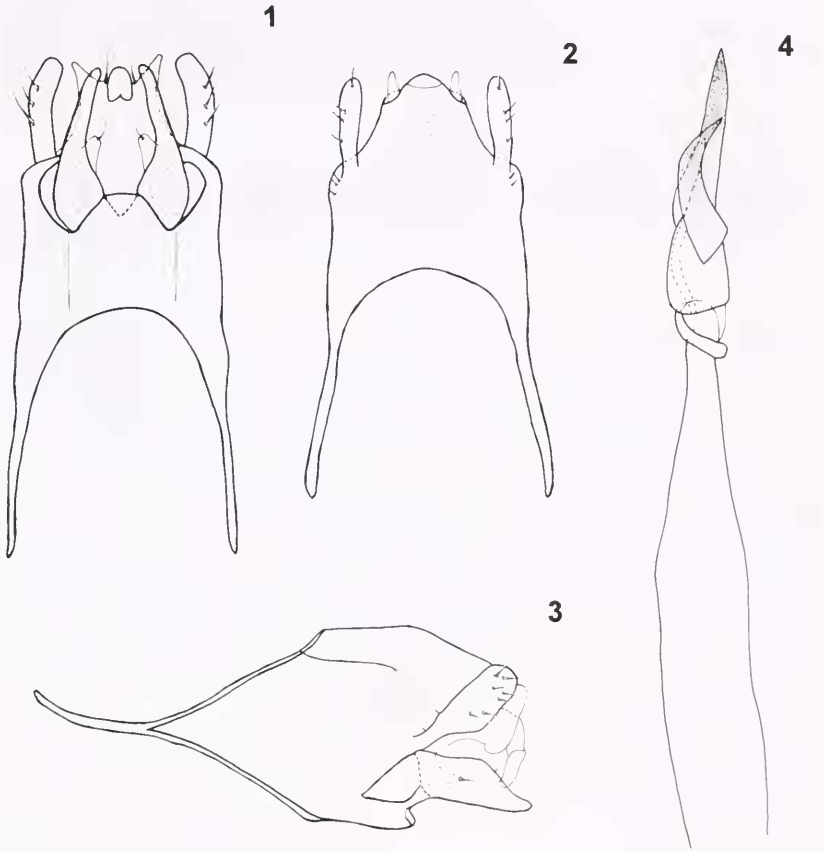
Male genitalia: Ninth segment in lateral view with anterior margin rounded, bracteola from posteroventral margin developed into a forked process, with dorsal arm thinner than ventral one; in ventral view posterolateral processes elongate and straight, anterior margin emarginate; dorsally with a pair of small setiferous lobes. Tenth segment fused with ninth segment, tergum developed as a pair of curved horn-like processses, sclerotized and distally acuminate. Inferior appendages bifid in lateral view, thin and narrowing distally; in ventral view bifid, with inner process thin and fused at midlength to a wider curved process. Subgenital plate a thin shelf in lateral view, curving ventrad to acute apex; in ventral view rectangular, with short mesal projection. Phallus wide basally, tubular distally, pair of sharply bent processes at apex, lower process curving downward; thin paramere encircling shaft at narrow midlength.

Female: Unknown.

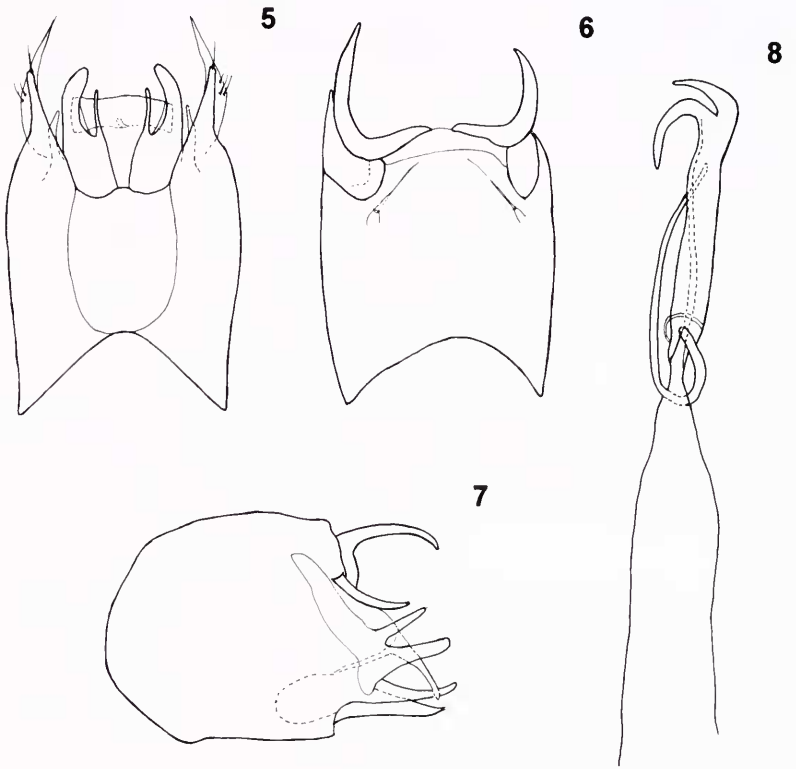
Type Material:. Holotype,♂. MEXICO: Veracruz: Estación de Biología Tropical Los Tuxtlas, UNAM. Arroyo del Zoológico, 2.VIII.1989, R. Barba (CNIN). Paratypes with same data as holotype, 10 ♂ (CNIN); 7♂.(USNM)

Etymology: The species epithet, *jarochita*, is the feminine diminutive of the vernacular name given to peasants of the coast of Veracruz, Mexico.

Remarks: This species was collected in an intermittent rivulet in the rain forest near the coast.



Figs.- 1-4. *Neotrichia tuxtla*, New Species. Male genitalia. 1. Ventral view. 2. Dorsal view. 3. Lateral view. 4. Phallus dorsal view.



Figs.- 5-8. *Neotrichia jarochita*, New Species. Male genitalia. 5. Ventral view. 6. Dorsal view. 7. Lateral view. 8. Phallus dorsal view.

Oxyethira hilosa Holzenthal & Harris

Holzenthal and Harris (1992) described this species from Costa Rica. In Mexico, this species was collected in a small clean water stream, near a lowland forest spring. Material studied: one ♂. MEXICO: Veracruz, San José del Carmen, Mpio. Agua Dulce Balneario San Antonio, 17°52'.291 N; 94°05'.042 W, el. 200 m, 11 June 1997, J Bueno, R. Barba (CNIN).

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LITERATURE CITED

Bueno-Soria, J. and S. C. Harris. 1993. Estudios en Insectos Acuáticos de México. IX. Cuatro Especies Nuevas del Género *Alisotrichia* (Trichoptera: Hydroptilidae). Anales Inst. Biol. Univ. Nac. Autón. México, Ser. Zool. 64(1): 49-60.

Harris, S. C. and J. Bueno-Soria. 1993. *Scelobotrichia*, a New Genus of Microcaddisflies From Mexico (Trichoptera:Hydroptilidae). Folia Entomol. Mex. 87: 73-83.

Harris, S. C. and L. J. Davenport. 1992. New Species of Microcaddisflies From The Amazon Region, With Especial Reference to Northeastern Peru (Trichoptera: Hydroptilidae). Proc. Entomol. Soc. Wash. 94(2): 454-470.

Harris, S. C. and S. G. Tiemann. 1993. New Species of *Neotrichia* From Panama, With a Preliminary Review of the *Canixa* Group (Trichoptera:Hydroptilidae). Proc. Entomol. Soc. Wash. 95(2): 286-292.

Holzenthal, W. R. and S. C. Harris. 1992. Hydroptilidae (Trichoptera) of Costa Rica: The Genus *Oxyethira* Eaton. J. N. Y. Entomol. Soc. 100(1): 155-177.

Marshall, J. E. 1979. A Review of the Genera of the Hydroptilidae (Trichoptera). Bull. Br. Mus. Nat. Hist., (Ent.) 39(3): 1-239.